

ABSTRACT OF THE DISCLOSURE

A switching power source device can enhance the power factor by increasing the conduction angle of an input current in a wide input voltage range, while obviating the increase of size and the increase of cost thereof, and lower the switching loss by removing higher harmonic waves from the input current. The device includes at least first, second, and third series circuits constituted of a rectifying circuit, at least first and second primary windings, a plurality of diodes, a smoothing capacitor, and first and second switching elements. The device further includes an error amplifier, which outputs an error amplified signal, and a control circuit that performs a PWM control of the switching element in response to a first modulated wave that is generated based on an inverted and amplified waveform, which is the product of the error amplified signal and a full-wave rectified waveform of an AC input voltage, and performs a PWM control of the switching element in response to a second modulated wave that is generated based on the error amplified signal and the full-wave rectified waveform of the AC input voltage to alternately turn ON and OFF the both switching elements.